

Use Attainability Analysis

for

WBID 2816 Craven Ditch

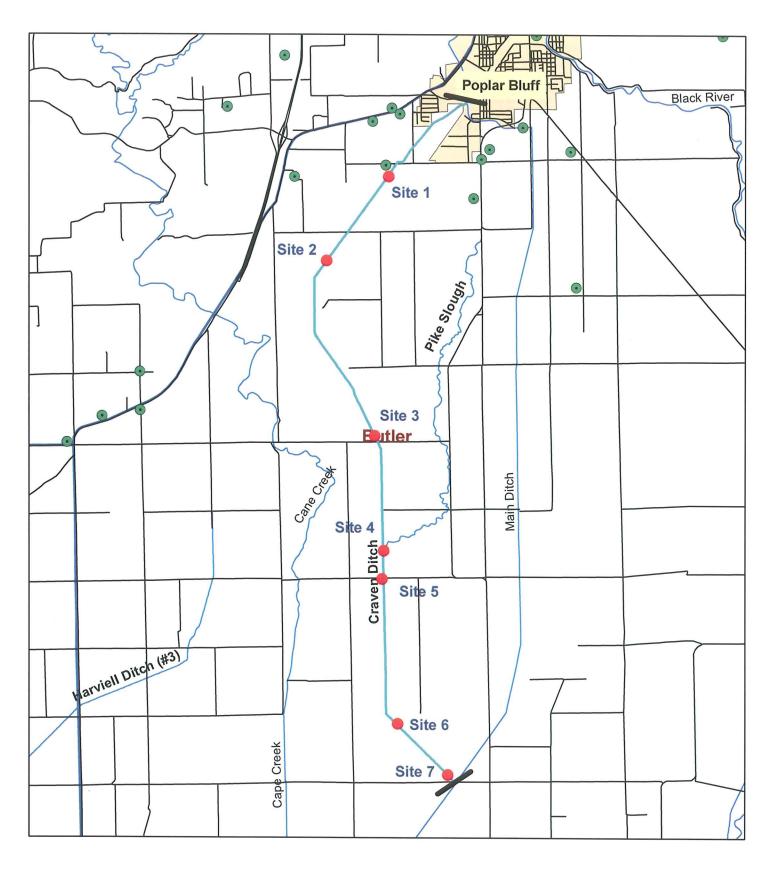
Submitted by MEC/ERC

To Missouri Department of Natural Resources Water Protection Program

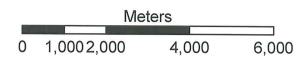
> On October 24, 2008

Data Sheet A - Water Body Identification

I.	Water Body Information (for water body being surveyed)
	Water Body Name (from USGS 7.5' quad): Craves Ditch
	Missouri Water Body Identification (WBID) Number: 28/6
	8-digit HUC: //0/0007
	County(ies), Listed Upstream to Downstream: Butler
	Upstream Legal Description (from Table H): 16,24 N, 6 E
	Downstream Legal Description (from Table H): Mouth
	Number of sites evaluated:
	List all site numbers, consecutively upstream to downstream: SIR 1, Site 2, Site 3, Site 4, Sik 5, Site 6, Site 7
	Include a Site Location Map(s). The map must include all requirements detailed in the Missouri Recreational Use Attainability Analyses: Water Body Survey and Assessment Protocol (Section IV.D.8.a).
II.	Facility Information (list all permitted discharges to this water body segment) Facility Name(s) and Permit Number(s): Westwood Manor Apartments MO - 0048844
III.	UAA Surveyor (please PRINT legibly) Name of Surveyor: 7/1/2 /// A // Tolonhone Number: 573 ///2 /// A
	Name of Surveyor: T. Altaether D. (aran; Telephone Number: 573-443-4/00 Organization/Employer: 1566 / 1667 Page 1000
	Organization/Employer: MEC Water Resources, Zac. ease verify that you have completed all sections of all data sheets, checked all applicable boxes, rovided a map (that includes all requirements listed in the Missouri Recreational Use Attainability
	nalysies: Water Body Survey and Assessment Protocol) and that this form is complete.
Si	gned: Date: 10/8/08
	Date: 10/8/08 Au C 10-20-08



Craven Ditch WBID 2816 Butler County





WBID#_	2816
Site#	1

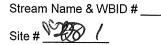
Data Sheet B – Site Characterization (Page 1 of 3) (must be completed for each site)

				(IIIus	t oc comp	neted for each site							
Date & T	ime:	9/26/	105 1	3:10)			e.g., road crossin					
Stream N	lame:	Craw	105 1. en Ditch			3	3 DS CR 305 + 302						
Current V	Veathe	er Conditio	ns: harn	6	320	Facility Name(s): // k	stwood A	1944				
Weather	Condi	tions for Pa	st 10 days: 2.7	31 in. 1	recip.	Permit Number	r(s): /	10-0048	844				
Official I	Drough	nt Condition	ns at time of this	survey (search D	Facility Name(s): West wood Manor Apts. Permit Number(s): MO - 0048844 h DNR home page for "drought"):							
No droug	ht A	Phase I □;	Phase II □; Phas	e III □	; Phase IV	/ □; Unknown □							
:4-14													
Ite Locat		ORDINATES	(UNIVERSAL TRA	NSVER	SE MERCA	ATOR PROJECTION	. IN MET	TERS)					
Site 01			(): 724142			MY): 406655		zontal Accuracy E / FOM / PDOP	: 21 Meters				
Site 11	Easti	ng (UTM)	():729037	Nort	hing (UT	^{MY):} 406672	Hori (EPE	zontal Accuracy E / FOM / PDOP	·				
notos:													
Photo II	Photo ID# Photo Purpose				ID#	Photo Purpos	e	Photo ID#	Photo Purpose				
28/6-/			Ystream	n 28/6-1-		Pistre	an						
Photo II	D#	Phot	o Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose				
Photo II	D#	Phot	o Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose				
ses Obse	erved	l*: (Uses <u>a</u>	ctually observed	at the ti	me of sur	rvey.)							
☐ Swin	☐ Swimming ☐		☐ Skin diving		□ scu	BA diving	□ Tul	oing	☐ Water skiing				
□ Wind	l surfir	ıg	☐ Kayaking		☐ Boat	ing	□ Wa	ding	☐ Rafting				
☐ Hunt			☐ Trapping		□ Fishi			ne of the above	☐ Other:				
Describe: when cond	(Includ	le number of i nterviews.)	ndividuals recreating,	photo-do	ocumentation	n of evidence of recreat	ional uses	, etc. Use Data Shee	et D-Recreational Use Interview				
				\mathcal{U}_{p}	H								

4	aven	Dit

d 2816

Date of Survey 8/24/08



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization (Page 2 of 3)

Su	rrounding Condi	tions*: (Mark all that pr	omote or	impede recreations	ıl uses. Attac	ch photos of ev	idence o	r unusual ite	ms of in	iterest.)			
	☐ City/county park	s 🛘 🗆 Playgrounds	□ M	IDC conservation	on lands	□ Urba	n areas		Ø F	Rural Residential			
	☐ Campgrounds	☐ State parks	□N	ational forests		□ Natu	re trails	3		Stairs/walkway			
	☐ Boating accesses	☐ Fence	□N	o trespass sign		≱ Stee₁	slope	5		Other:			
	Comments:			NA									
Ev	Evidence of Human Use*: (Attach photos and reference in "Photos" section.)												
	□ Roads □ Foot paths/prints □ Dock/platform □ Camping Sites □ Rope swings												
	□ RV / ATV Track	s ☐ Fire pit/ring		□ NPDES Di	scharge	☐ Fishing	g Tackl	e [] Live	estock Watering			
	None of the above Comments / Other:												
Su	bstrate*: (These val	ues should add up to 100%.)											
	- % Cobble	- % Gravel	10	> % Sand	20	% Silt	70	% Mud/0	Clay	− % Bedrock			
Aq	Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.) Acrose regetation - see Pics												
Wa	ater Characterist	iCS [*] : (Mark all that apply. ☐ Sewage ☐ M		□ Chem		No.							
	Color:	☐ Sewage ☐ M Clear ☐ G			icai	None		☐ Other:					
	Bottom Deposit:	☐ Sludge ☐ So		☐ Gray ☐ Gray	adimenta.		☐ Milky		Other:				
	Surface Deposit:	□ Oil □ Se		☐ Foam	ediments	None		□ Oth					

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

		ets for Recreation			
	Data Sheet I	B – Site Charac	terization (Pag	ge 3 of 3)	
tional Stream M	lorphology: (Record iso	lated pools or other featur	es identified during the	survey that may support recre	ational uses.)
Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Dept
				12/	
				1	
ments: (Please reco	ord any additional comments her	e.)			
			De		

Ple complete.

Printed Names of Personnel Collecting Data:	David	Cara;	

Date of Survey: 9/36/08 Surveyor's Signature: Organization: MEC Wase Resonne Inc. Position: Wes

ahc 10-20-08

Data Sheet B Revised: December 19, 2007

																		Disso	lved O	xygen			1
	Stream	Name:	Cr	aven Dit	ch	i.	Waterb	ody ID:	2816		.	Site #:	1			Date:	0/26	2008		Time:	13:	10	
	Estimat	ed Chanr	nel Incisi	on:	0.5	(m) (hei	ght betw	veen low	bank wi	dth and v	vater)					Date.	9/20/	2008		Time.	13.	10	
	GPS Lo	eation - 1	Facting (HTM Y	Northi	ng (UTM	(V) Ho	rizontal	Accuraci	v Ectimat	e (EDE	/ PDOP /	FOM			Di	ssolved	Oxygen:	4.	66	(mg/L)		
							JTM Y		406	Accuracy Estimate (EPE / PDOP / FOM) 4066855 +/- 21 (meters)			Dissolved Oxygen: 54.5 (% sat)										
	11	UTM X UTM X	:	729	037	. 1	JTM Y:		406	4066773 +/- 15 (meters)					Specifi	ic Cond:	1'	78	(µS/cm)				
		e Stream			3	.5		(meters)	L	ength of	Survey S	Segment:	150	(meters)		Specifi	ic Cond.		76	(µ5/спі)		
	(To determne Length of Reach)							(2	0x avera	ge strea	m width)				Wa	ter Temp	erature:	24	1.0	(°C)			
	Field Staff: DC, TA											_											
	Transect Cross-Section																						
	0)1	0	12	0	3	()4	()5	()6	()7	()8	0	19	1	.0	1:	1	
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0.50	0.19	0.30	0.10	0.30	0.09	0.72	0.20	0.71	0.09	0.28	0.26	0.21	0.08	0.08	0.05	0.12	0.11	0.35	0.20	0.05	0.18	
2	1.00	0.25	0.60	0.10	0.60	0.13	1.44	0.35	1.42	0.01	0.56	0.33	0.42	0.04	0.16	0.09	0.24	0.15	0.70	0.25	0.10	0.21	
3	1.50	0.25	0.90	0.16	0.90	0.18	2.16	0.40	2.13	0.20	0.84	0.36	0.63	0.14	0.24	0.13	0.36	0.15	1.05	0.26	0.15	0.24	
4	2.00	0.27	1.20	0.19	1.20	0.18	2.88	0.44	2.84	0.26	1.12	0.37	0.84	0.13	0.32	0.23	0.48	0.17	1.40	0.26	0.20	0.25	
5	2.50	0.29	1.50	0.20	1.50	0.17	3.60	0.45	3.55	0.34	1.40	0.39	1.05	0.30	0.40	0.26	0.60	0.21	1.75	0.25	0.25	0.25	
6	3.00	0.28	1.80	0.18	1.80	0.15	4.32	0.46	4.26	0.39	1.68	0.39	1.26	0.34	0.48	0.27	0.72	0.21	2.10	0.25	0.30	0.22	
7	3.50	0.26	2.10	0.30	2.10	0.28	5.04	0.50	4.97	0.41	1.96	0.27	1.47	0.36	0.56	0.27	0.84	0.22	2.45	0.28	0.35	0.20	
8	4.00	0.25	2.40	0.33	2.40	0.19	5.76	0.48	5.68	0.44	2.24	0.33	1.68	0.35	0.64	0.17	0.96	0.22	2.80	0.21	0.40	0.10	
9	4.50	0.23	2.70	0.19	2.70	0.16	6.48	0.40	6.39	0.40	2.52	0.32	1.89	0.35	0.72	0.16	1.08	0.21	3.15	0.26	0.45	0.08	rwc
Right Bank	5.00	0.00	3.00	0.00	3.00	0.00	7.20	0.00	7.10	0.00	2.80	0.00	2.10	0.00	0.80	0.00	1.20	0.00	3.50	0.00	0.50	0.00	
Feature Type		•						•		•		•				•		•					
(riffle, run, or pool	Po	ool	Po	ool	Po	ool	Po	ool	Po	ool	P	ool	Po	ool	Po	ool	Po	ool	Po	ool	Po	ol	

or poosi 1 0.01 F.001 F.001 P.001 P.

Surveyor's Signature: Date:	9/26/2008
-----------------------------	-----------

WBID# <u>2816</u> Site# <u>2</u>

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

D	ate & T	ime:	9/26/	08 12	:45		Location Descr	iption (e	e.g., road crossin	ng):			
	Stream N		Cra	ven Dites			D5 7	nterse	cron of 3	05 × 314			
C	Current V	Veath	er Condition	ns: harm	82	۵	Facility Name(Facility Name(s): Westwood Manor Apris.					
V	Veather	Condi	tions for Pa	ns: nara st 10 days: 2	.31 (n.	precip	Facility Name(s): Westwood Menor Apts. Permit Number(s): MO - 0048844						
- 10	official L	rougi	it Condition	is at time of this s	survey (search D	NR home page for	'drough	t"):				
N	lo droug	ht ();	Phase I □;	Phase II □; Phas	e III □;	Phase IV	√ □; Unknown □						
Sito	ite Location:												
			ORDINATES	(UNIVERSAL TRA	NSVERS	SE MERC	ATOR PROJECTION	IN MET	ERS)				
S	Site 01	Easti	ng (UTM Σ	(): 727648			M Y): 406 44 31	(EPE	ontal Accuracy / FOM / PDOP) 4.4 Meters			
S	Site 11	Easti	ng (UTM X	(): 727564	North	ning (UT	MY): 4069726	Horiz (EPE	zontal Accuracy / FOM / PDOP				
Phot	tos:					·							
	Photo II		Phot	o Purpose	Photo		Photo Purpos	Photo Purpose		Photo Purpose			
â	9.8/6	74	U	Stream	2816-2-		DoStree	um					
				J.									
F	Photo II	D#	Phot	o Purpose	Photo	ID#	Photo Purpos	e Photo ID#		Photo Purpose			
F	Photo II	D#	Phot	o Purpose	Photo	ID#	Photo Purpos	е	Photo ID#	Photo Purpose			
Use	s Obs	erved	d*: (Uses <u>a</u>	ctually observed	at the ti	me of su	rvey.)						
[☐ Swimming ☐ Skin diving					□ scu	JBA diving	☐ Tub	ing	☐ Water skiing			
[☐ Wind surfing		ng	☐ Kayaking		☐ Boat	ting	□ Wa	ding	☐ Rafting			
1	☐ Hunting ☐ Trapping					□ Fish	· · · · · · · · · · · · · · · · · · ·		ne of the above	☐ Other:			
	Describe:	(Includ	de number of i	ndividuals recreating	photo-do	cumentatio	on of evidence of recreat	onal uses,	etc. Use Data She	et D- Recreational Use Interview			
· ·							MA						
L							•						

Stream Name & WBID#	2816	Date of Survey <u>9/24/</u> 08
Field Data Sheets	for Recreational Use Stream Sur	veys
Data Sheet B -	- Site Characterization (Page 2 or	f3)

Surrounding C	onditio	ns*: (Mark all that p	omote or imp	pede recreation	al uses. Attac	ch photos of ev	idence or unusual	l items of i	interest.)			
☐ City/county		☐ Playgrounds	1	C conservati		□ Urba			Rural Residential			
☐ Campgrour	nds	☐ State parks	☐ Natio	onal forests		☐ Natu	re trails	☐ Stairs/walkway				
☐ Boating acc	cesses	☐ Fence	☐ No tr	respass sign		₽Stee	p slopes	<u>D</u> =	Other:			
Comments:						Ag	land					
Evidence of Hu	ıman Us	Se*: (Attach photos a	nd reference	in "Photos" sec	etion.)							
□ Roads □ Foot paths/prints □ Dock/platform □ Camping Sites □ Rope swings												
□ RV / ATV	Tracks	☐ Fire pit/ring		NPDES Di	scharge	□ Fishing	g Tackle	□ Liv	estock Watering			
None of the	None of the above Comments / Other:											
Substrate*: (Th	iese values s	hould add up to 100%.)										
% Co	obble	% Gravel	20	% Sand	20	% Silt	€ % Mu	d/Clay	- % Bedrock			
Aquatic Vegeta	ation*: (Note amount of vegetati	on or algal gr	owth at the ass	essment site	.)						
		•	5 -hu									
		U	5 - 90	0 % e	regen,	veg						
Water Characte	eristics [,]	*: (Mark all that apply	.)									
Odor:			 Iusky	☐ Chem	ical	None		other:				
Color:	D.	Clear 🗆 G	reen	☐ Gray		☐ Milky		other:				
Bottom Depos	it: 🗆	Sludge 🗆 S	olids	Fine s	ediments	None		☐ Other:				
Surface Depos	it: 🗆	Oil □ S	cum	☐ Foam		None		other:				

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID #	Craven	Dioch	2816	Date of Survey 9/26/08
Site #				

Data Sheet B - Site Characterization (Page 3 of 3)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	
			1		

Comments:	(Please record any additional comments here.)	

(1 lease record any additional comments nere.)
A Company of the Comp

Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.

Printed Names of Personnel Collecting Data: David Caran

Surveyor's Signature:

Date of Survey: 9/04/05

Organization: MEC Waser Resource Position: WOS

Auc 10-2008

Data Sheet B Revised: December 19, 2007



																		Disso	lved O	xygen		
	Stream	Name:	Cı	raven Di	ch	•	Waterb	ody ID:	2816		•	Site #:	2		-	Date:	9/26	/2008		Time:	12	:45
	Estimat	ed Chanı	nel Incisi	ion:	0.5	(m) (hei	ght betw	een low	bank wi	dth and v	vater)					Di	ssolved	Oxygen:	8.	57	(mg/L)	
	01	ution - I	:	727	648	. 1	JTM Y:		406	4831		+/-	9.4	- `	ters)	Di	ssolved	Oxygen:	98	8.7	(% sat)	
		UTM X				. '	JTM Y:		406	4726	•	+/-	6.0	(me	ters)		Specif	ic Cond:	2	74	(μS/cm)	,
		e Stream ermne Le			4	.5		(meters)	•	_	-	Segment: m width)			(meters)	Wa	ter Temp	perature:	2:	2.3	(°C)	
	Fie	ld Staff:						DC, TA						-								
										Trai	nsect C	ross-Se	ction			l						
)1)2	_	3		4)5)6)7		08)9		10		1
ation	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.42	0.18	0.48	0.25	0.46	0.28	0.45	0.25	0.43	0.25	0.45	0.34	0.40	0.21	0.51	0.26	0.50	0.28	0.38	0.25	0.61	0.25
2	0.84	0.21	0.96	0.35	1.38	0.35	0.90	0.34	1.29	0.34	0.90	0.37	1.20	0.23	1.02	0.29	1.00	0.31	0.76	0.29	1.22	0.29
4	1.26	0.28	1.44	0.45	1.84	0.40	1.80	0.33	1.72	0.38	1.80	0.39	1.60	0.30	2.04	0.35	2.00	0.38	1.14	0.33	2.44	0.37
5	2.10	0.50	2.40	0.48	2.30	0.47	2.25	0.40	2.15	0.37	2.25	0.35	2.00	0.33	2.55	0.35	2.50	0.44	1.90	0.37	3.05	0.40
6	2.52	0.56	2.88	0.45	2.76	0.45	2.70	0.36	2.58	0.34	2.70	0.33	2.40	0.29	3.06	0.36	3.00	0.43	2.28	0.40	3.66	0.34
7	2.94	0.50	3.36	0.49	3.22	0.51	3.15	0.38	3.01	0.34	3.15	0.31	2.80	0.34	3.57	0.31	3.50	0.41	2.66	0.29	4.27	0.33
8	3.36	0.35	3.84 4.32	0.51	3.68	0.45	3.60 4.05	0.39	3.44	0.36	3.60 4.05	0.35	3.20	0.37	4.08	0.34	4.00	0.42	3.04	0.40	4.88 5.49	0.27
Bank	4.20	0.21	4.32	0.35	4.14	0.32	4.05	0.37	4.30	0.35	4.05	0.33	4.00	0.36	5.10	0.34	5.00	0.35	3.42	0.29	6.10	0.18
е Туре																						
run, or pool	R	un	R.	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R.	un

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Surveyor's Signature: Date: 9/26/2008	Surveyor's Signature:	Date:	9/26/2008
---------------------------------------	-----------------------	-------	-----------

Data Sheet B – Site Characterization (Page 1 of 3) (must be completed for each site)

Γ	D-4- 0.7		~ /									
ŀ	Date &	ime:	9/26/0	08 12	1,00			Location Description (e.g., road crossing):				
	Stream	Name:	Cra	08 12 en Pitch			2	Facility Name(s): Westwood Maner Apts.				
	Current	Weath	er Conditio	ns: Uear	80		Facility Name((s) : ω	estward 1	Maner Apts		
	Weather	Cond	itions for Pa	ns: Uour ast 10 days: 1	.31 in	. prec	Permit Numbe	r(s): / 4	10-00498	44		
	Official	Droug!	ht Condition	ns at time of this	survey ((search l	DNR home page for	"drough	t'"):			
	No droug	ght X ;	Phase I □;	Phase II □; Phas	e III 🗆	; Phase 1	IV □; Unknown □					
Sit	te Loca											
	LOCATIO	i					CATOR PROJECTION			8.0		
	Site 01	East	ing (UTM X	(): 728790	Nort	hing (U'	TM Y): 4060 כנד	(EPE	ontal Accuracy: / FOM / PDOP)	S-Z-Meters		
	Site 11	East	Easting (UTM X): 7.28628			Northing (UTM Y): 40606			7 7 7 8			
Ph	otos:			- 72								
	Photo I		Phot	o Purpose	Photo ID#		Photo Purpos	Photo Purpose		Photo Purpose		
	28/6-3 0	3. 72		UpStream	28/6-3-		P.Sm	Derream				
	Photo I	D#	Phot	to Purpose	Photo	to ID# Photo Purp		ose Photo ID#		Photo Purpose		
					100 Hz							
	Photo I	D#	Phot	to Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose		
Us	es Obs	erved	d*: (Uses a	actually observed	at the ti	me of s	urvev.)		<u> </u>			
	☐ Swir			☐ Skin diving			UBA diving	☐ Tub	ing	☐ Water skiing		
			☐ Kayaking		□ Во	ating	□ Wao	ling	☐ Rafting			
	☐ Hunting ☐ Trapping ☐ Fish					☐ Fis	hing	50 Non	e of the above	☐ Other:		
	Describe	: (Inclu	de number of i	ndividuals recreating,	photo-do			ional uses,	etc. Use Data Sheet	t D- Recreational Use Interview		
	mich con	adoinig	mmoi v 16 w 3.)			•	NIA					

P

Stream Name &	WBID#	ven P).teh 2-8	16	D	ate of Surv	ey 9/26/08
Site #3							
		a Chasta f	- D 49	LTI. C			
	Fleid Dat	a Sneets 1	or Recreation:	al Use Stre	am Surveys		
	Data S	heet B –	Site Charact	erization (Page 2 of 3)		
Surrounding Cond	litione* . Mark all e	hat					
☐ City/county par		1	DC conservation				
					Urban areas		Rural Residential
☐ Campgrounds	☐ State par		ational forests		Nature trails		Stairs/walkway
☐ Boating accesse Comments:	es	LJ No	trespass sign	LYP	Steep slopes		Other:
		/	As land				
Evidence of Huma	ın Use*: (Attach phe	otos and referen	ce in "Photos" section	`			
☐ Roads	☐ Foot paths		☐ Dock/platform		amping Sites	ПВ	ope swings
□ RV / ATV Trac		-	□ NPDES Disch		shing Tackle		vestock Watering
₩ None of the abo		-		uigo 1.	oning rackie		vestock watering
F TVOIC OF MIC US			I	VA			
				(/)			
Substrate*: (These v	alues should add up to 10	0%.)		0.7			
% Cobble	e % Grav	vel つい	% Sand 20	the %	Silt Co %	Mud/Clay	— % Bedrock
Aquatic Vegetatio	n*: (Note amount of ve	getation or alga	l growth at the assessn	nent site.)			
	100	one	Periphy 1	un ~ 30	ob coverage		
	H	onc	. ,	~ 7	0% a+ U	5 tran	914
Water Characteris							
Odor:		□ Musky	☐ Chemical	J bN	one [☐ Other:	
Color:	&DClear [Green	☐ Gray	□ M	lilky [☐ Other:	
Bottom Deposit:	☐ Sludge [□ Solids	☐ Fine sedi	ments DON	one [☐ Other:	
Surface Deposit:	□ Oil [□ Scum	☐ Foam	V, N	one [☐ Other:	

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Na	ame & WBID #(raven	Ditch	2816	Date of Survey _	9/26/08
Site-#	3				Date of carvey_	129100

Data Sheet B - Site Characterization (Page 3 of 3)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
			DI.		
			R		

Comments:	(Please record any additional comments here.)

Jimonto. (Hease	record any additional comments nere.)
	De-

Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.

Printed Names of Personnel Collecting Data:	David	Caran:	
		. 0.7 /	

Que 10-20-08

																		Disso	lved O	xygen			
	Stream	Name:	C	raven Di	tch	-	Waterbo	ody ID:	2816	<u> </u>		Site #:	3			Date:	9/26	/2008		Time:	12	:00	
	Estimat	ed Chanı	nel Incis	ion:	0.8	(m) (he	ght betw	veen low	bank wi	idth and v	vater)					D:	ccolvod	Oxygen:		.08	(mg/L)		
		ocation -			,,	ng (UTM	1 Y), Ho	rizontal .	Accurac	-	e (EPE	PDOP /	FOM)					,,,					
		UTM X UTM X			3790 3828	- 1	JTM Y: JTM Y:		406	0720 0603		+/-	5.9	(me (me		Di	ssolved	Oxygen:	10	7.5	(% sat)		
		e Stream				0		(meters)	т.	ength of	Eurou G	Foomont:	150		(meters)		Specif	ic Cond:	2	22	(µS/cm))	
		ermne Le						(meters)		20x avera					(inicicis)	Wa	ter Tem	perature:	24	4.0	(°C)		
	Fie	ld Staff:						DC, TA															
										Tra	nsect C	ross-Se	ction			_							ł
		01	(02	()3	0	04		05)6)7	(18	()9	1	10	1	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m	,
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0.40	0.11	0.39	0.09	0.42	0.09	0.28	0.16	0.32	0.10	0.38	0.11	0.42	0.04	0.43	0.14	0.31	0.12	0.25	0.21	0.82	0.13	1
2	0.80	0.15	0.78	0.15	0.84	0.15	0.56	0.16	0.64	0.14	0.76	0.16	0.84	0.16	0.86	0.23	0.62	0.15	0.50	0.21	1.64	0.12	
3	1.20	0.17	1.17	0.16	1.26	0.17	0.84	0.19	0.96	0.16	1.14	0.17	1.26	0.05	1.29	0.28	0.93	0.16	0.75	0.21	2.46	0.12	-
4	1.60	0.17	1.56	0.17	1.68	0.21	1.12	0.22	1.28	0.20	1.52	0.21	1.68	0.20	1.72	0.31	1.24	0.16	1.00	0.21	3.28	0.20	1
5	2.00	0.20	1.95	0.20	2.10	0.26	1.40	0.25	1.60	0.22	1.90	0.26	2.10	0.21	2.15	0.34	1.55	0.17	1.25	0.21	4.10	0.25	ł
6	2.40	0.19	2.34	0.21	2.52	0.19	1.68	0.29	1.92	0.23	2.28	0.26	2.52	0.21	2.58	0.31	1.86	0.18	1.50	0.20	4.92	0.32	
7	3.20	0.18	3.12	0.18	2.94 3.36	0.15	1.96 2.24	0.30	2.24	0.25	2.66 3.04	0.25	3.36	0.21	3.01	0.27	2.17	0.18	2.00	0.20	5.74 6.56	0.32	1
9	3.60	0.18	3.12	0.23	3.78	0.14	2.52	0.26	2.88	0.26	3.42	0.20	3.78	0.18	3.44	0.22	2.48	0.18	2.25	0.21	7.38	0.28	I
Right Bank	4.00	0.00	3.90	0.00	4.20	0.00	2.80	0.00	3.20	0.00	3.80	0.00	4.20	0.00	4.30	0.00	3.10	0.00	2.50	0.00	8.20		rw
Feature Type						•		•						•		•		•		•			1
(riffle, run, or pool	R	un	R	.un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	

Surveyor's Signature: Date:	9/26/2008
-----------------------------	-----------

WBID# 2816

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3) (must be completed for each site)

Date & 1	ime:	9/24	104 10.	30		Location Desc	ription (e	e.g., road crossin	ng):
Stream		Cra	wen Ditch	4		US	C	R 338	
Current	Weath	er Conditio	ns: Clear unst 10 days: 2	m (750	Facility Name((s): h	1estwood	Manor Apts.
Weather	Condi	tions for Pa	ust 10 days: 🏅 🔾	·31 in.	precip	Permit Numbe	r(s): //	40 - 0048	844
Official	Orougl	nt Condition	ns at time of this	survey (s	earch D	NR home page for	"drough	t"):	0 * 7
No droug	ght 🖙,	Phase I □;	Phase II □; Phas	se III □;	Phase I	V □; Unknown □			
Site Loca		ORDINATES	(INIVERSAL TR	ANCVEDO	E MEDC	ATOR PROJECTION		Enc	
								ers) contal Accuracy:	
Site 01	Easu	ng (O I M 2	(): 729614	North	ing (UT	MY):40571795	(EPE	/ FOM / PDOP) S, Wieters
Site 11	Easti	ng (UTM X	(): 729013	North	ing (UT	MY): 40573	Horiz (EPE	ontal Accuracy: / FOM / PDOP	4.D Meters
hotos:						40571795			
Photo II	D#	Phot	o Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose
2816_	2816-4- Upstream			2816-	-4-	Pastra	Distream		
	T				T SHEET TO				
Photo II	D#	Phot	o Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose
Photo II	D#	Phot	o Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose
									There i impose
ses Obs	arvod	*• (I I a a a -	otuelly of 1	-44h : 1				<u> </u>	
□ Swin		(Uses a	ctually observed						
			☐ Skin diving			BA diving	□ Tub		☐ Water skiing
	surfir	ng	☐ Kayaking		☐ Boat		□ Wac	ling	☐ Rafting
☐ Hunt		0	☐ Trapping		□ Fish			e of the above	☐ Other:
when cond	ucting i	e number of in	iuiviuuais recreating,	, рпото-дос	A	n of evidence of recreat	ional uses,	etc. Use <i>Data Shee</i> .	t D- Recreational Use Interview

Stream Name & WBID# 2814 Crace Pitch Date of Survey	y <u>9/24/08</u>
Site #	
Field Data Sheets for Recreational Use Stream Surveys	
Data Sheet B – Site Characterization (Page 2 of 3)	
Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of in	interest.)
☐ City/county parks ☐ Playgrounds ☐ MDC conservation lands ☐ Urban areas ☐ ☐	Rural Residential
☐ Campgrounds ☐ State parks ☐ National forests ☐ Nature trails ☐	Stairs/walkway
	Other:
Comments: Agricu Inva	
1911041742	
Evidence of Human Use*: (Attach photos and reference in "Photos" section.)	
	pe swings
	vestock Watering
None of the above Comments / Other:	
N //	
•	
Substrate*: (These values should add up to 100%.)	1
% Cobble % Gravel 20 % Sand 60 % Silt 20 % Mud/Clay	% Bedrock
Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)	
hone	
Water Characteristics *. or a many a	
Water Characteristics*: (Mark all that apply.) Odor: □ Sewage □ Musky □ Chemical □ None □ Other:	
Color: Green Gray Milky Other:	
Bottom Deposit: Sludge Solids Fine sediments None Other:	

2816

☐ Foam

□ Scum

Surface Deposit:

□ Oil

☐ Other:

None

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID #	2816	(ravan	Pijer	Date of Survey 9/34/05
CH 4 4				7

Data Sheet B - Site Characterization (Page 3 of 3)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)		Median Depth (m)	
			P		

Comments:	(Please record any additional comments here.)	
1		-

Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.

Printed Names of Personnel Collecting Data: Panid Caran: + 7im Altnerhan

Surveyor's Signature: Date of Survey: 9/14/08

Organization: ME(Warr Reserve) Inc. Position: hQS

Auc 10-70-08

																		Disso	lved O	xygen		
	Stream	Name:	Cı	aven Dit	ch	-	Waterb	ody ID:	2816			Site #:	4		-	Date:	9/26	/2008		Time:	10	0:30
	Estimat	ed Chanı	nel Incisi	on:	1.2	(m) (hei	ght betw	veen low	bank wi	dth and v	vater)					Di	ssolved	Oxygen:	9.	18	(mg/L)	
		ocation - I				-	,,,	rizontal A		/ Estimat 7955	e (EPE /	PDOP / +/-	FOM) 5.0	(me	ters)	Di	ssolved	Oxygen:	10	1.3	(% sat)	
		UTM X			013		UTM Y:		405	7953		+/-	4.0	(me	ters)		Specif	ic Cond:	2	08	(μS/cm)
		e Stream ermne Le			4	.6		(meters)		ength of s	-	_	150		(meters)	Wa	•	perature:			(°С)	,
	Fie	ld Staff:						DC, TA									•					
										Trai	sect C	ross-Sec	ction		ı						ı	
	_)1	Distance	2	Distance)3	Distance)4	Distance	5	Distance	6	Distance	7	Distance	8	Distance)9	Distance	10	Distance	11
Station	Distance (m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.42	0.15	0.35	0.15	0.32	0.09	0.32	0.09	0.40	0.13	0.42	0.09	0.45	0.11	0.42	0.11	0.40	0.11	0.32	0.13	1.04	0.08
3	1.26	0.17	1.05	0.13	0.96	0.17	0.96	0.17	1.20	0.16	1.26	0.18	1.35	0.14	1.26	0.09	1.20	0.13	0.96	0.15	1.56	0.10
4	1.68	0.15	1.40	0.20	1.28	0.17	1.28	0.16	1.60	0.16	1.68	0.19	1.80	0.18	1.68	0.16	1.60	0.13	1.28	0.13	2.08	0.11
5	2.10	0.20	1.75	0.17	1.60	0.18	1.60	0.15	2.00	0.17	2.10	0.17	2.25	0.17	2.10	0.13	2.00	0.15	1.60	0.13	2.60	0.11
6		0.20	2.10	0.19	1.92	0.18	1.92	0.14	2.40	0.17	2.52	0.16	2.70	0.17	2.52	0.13	2.40	0.13	1.92	0.13	3.12	0.11
7		0.15	2.45	0.17	2.24	0.14	2.24	0.16	2.80	0.18	2.94	0.15	3.15	0.15	2.94	0.12	2.80	0.12	2.24	0.12	3.64	0.09
8	3.36	0.15	3.15	0.10	2.56	0.14	2.56	0.15	3.20	0.15	3.36	0.15	3.60 4.05	0.15	3.36	0.13	3.20	0.14	2.56	0.12	4.16	0.10
ight Bank	4.20	0.00	3.50	0.00	3.20	0.00	3.20	0.00	4.00	0.00	4.20	0.00	4.50	0.00	4.20	0.00	4.00	0.00	3.20	0.00	5.20	0.00
eature Type								•										•				
iffle, run, or pool	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un

Surveyor's Signature: Date: 9/26/2008	Surveyor's Signature:	Date:	9/26/2008
---------------------------------------	-----------------------	-------	-----------

WBID#_	28/6
Site#	5

Data Sheet B – Site Characterization (Page 1 of 3) (must be completed for each site)

			V								
Date	& Time:	9/26/	08 10:0	<u>၂</u>		Location Descri	ription (e	g., road crossin	ıg):		
	ım Name:	Crave	Disek				338				
Curre	nt Weath	er Conditio	ns: clear co	0/7	56	Facility Name((s): W	sthood	Manor Apts.		
Weat	her Condi	itions for Pa	ast 10 days:	7c 2.31	n. precip	Permit Number	r(s): /	10-0098	844		
Offici	iai Drougi	nt Condition	ns at time of this	survey (se	arch DN	R home page for	"drough	t"):			
No dr	ought 🔀;	Phase I □;	Phase II □; Phas	se III □; Pl	hase IV	□; Unknown □					
Site Lo											
	l		(UNIVERSAL TRA				TT.				
Site 0	1 Easti	ing (UTM X	x): 729026	Northin	ıg (UTM	Y): 405730/		contal Accuracy / FOM / PDOP			
Site 1	1 Easti	ing (UTM)	x): 729021	Northin	ıg (UTM	Y): 4057120		ontal Accuracy / FOM / PDOP			
Photos:											
	Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose										
28/6	-5- 064	<u>4</u> 5-	tream	2816-9	5- 65	Postve	am				
Dl4-	- ID#	DI.	D.								
Piloto	o ID#	Pnot	to Purpose	Photo II	Photo ID# Photo Pur			Photo ID#	Photo Purpose		
					`*						
							196				
Photo	o ID#	Phot	to Purpose	Photo II	D#	Photo Purpos	se	Photo ID#	Photo Purpose		
		ı									
llege O	heemier	J*• (I Igon s		441-24					·		
	wimming		ctually observed Skin diving				— — — — — — — — — — — — — — — — — — —				
					SCUB.		☐ Tub		☐ Water skiing		
	Vind surfi	ng	☐ Kayaking		☐ Boatin		□ Wac		☐ Rafting		
L	lunting	de number of i	☐ Trapping		Fishing		Non Non	e of the above	Other:		
when o	conducting i	interviews.)	ndividuais recreating.	, photo-docui	nentation of	of evidence of recreat	ional uses,	etc. Use <i>Data Shee</i>	t D- Recreational Use Interview		

Stream Name & WBID #	Craven	Ditch	28/6	Date of Survey 9/26/08
Site # 5				/ / -

Data Sheet B - Site Characterization (Page 2 of 3)

Su	rrounding Condit	ions*: (Mark all that pr	omote or im	pede recreations	ıl uses. Attac	ch photos of ev	idence or unusual	items of i	nterest.)		
	☐ City/county parks	☐ Playgrounds	1	C conservati		☐ Urba		1	Rural Re	sidential	
	☐ Campgrounds	☐ Campgrounds ☐ State parks				☐ Natu	re trails		Stairs/wa	ılkway	
	☐ Boating accesses	☐ Fence	☐ No t	respass sign		⅓ Steep	slopes	Ø	Other:		
	Comments: Agriculoural										
Ev	Evidence of Human Use*: (Attach photos and reference in "Photos" section.)										
	☐ Roads	☐ Foot paths/pri	ıts 🗆	Dock/platfo	orm	☐ Campir	ng Sites	□ Ro _l	pe swings	3	
	□ RV / ATV Tracks	☐ Fire pit/ring		NPDES Di	scharge	□ Fishing	Tackle	□ Liv	estock W	atering	
	None of the above Comments / Other:										
Su	ıbstrate*: (These valu	es should add up to 100%.)									
	% Cobble	- % Gravel	20	% Sand	60	% Silt	وم % Mu	d/Clay	_	% Bedrock	
Ac	Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)										
W	Water Characteristics*: (Mark all that apply.)										
	Odor:	□ Sewage □ M	lusky	☐ Chem	ical	□ None		ther:			
	Color:	☑ Clear ☐ G	reen	☐ Gray		□ Milky		ther:			
	Bottom Deposit:	□ Sludge □ S	olids	√ Fine s	ediments	□ None		ther:			
	Surface Deposit:	□ Oil □ S	cum	□ Foam		None	ПС	ther:			

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID#	Craven	Nitch	28/6	Date of Survey 9/26/08
Site # 5	•	U I		2010 01 001 VO)

Data Sheet B - Site Characterization (Page 3 of 3)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)		
				n		
					-	

Comments: (Please red	ord any additional comments here.)
-----------------------	------------------------------------



Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.

Printed Names of Personnel Collecting Data: David Carani / Tim Altneram

Surveyor's Signature:

Date of Survey: 9/26/08

Organization: MEC Ware Resumes, Inc. Position: WQS

																		Disso	lved O	xygen		
	Stream	Name:	Cı	aven Dit	ch	-	Waterbo	ody ID:	2816			Site #:	5		•	Date:	9/26	/2008		Time:	10	0:00
	Estimat	ed Chanı	nel Incisi	on:	0.75	(m) (hei	ght betw	een low	bank wi	dth and v	vater)					Di	ssolved	Oxygen:	7.	11	(mg/L)	
		ution - I				-	,,,	rizontal A		y Estimat 7301	e (EPE /	PDOP / +/-	FOM) 5.0	(me	ters)	Di	ssolved	Oxygen:	76	5.2	(% sat)	
		UTM X: 729021 UTM Y: 4057120 +/- 7.0 (meters)				ters)	Specific Cond					(μS/cm))									
		e Stream ermne Le			5	.0		(meters)		ength of S	-	_	150		(meters)	Wa	•	perature:			(°C)	
	Fie	ld Staff:						DC, TA						i								
	Transect Cross-Section																					
	01 02 03)3	04 05			06 07			08 09)9	10		11						
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.39	0.10	0.35	0.11	0.48	0.11	0.42	0.10	0.42	0.07	0.34	0.11	0.38	0.12	0.36	0.09	0.35	0.10	1.24	0.07	1.02	0.16
3	1.17	0.11	1.05	0.08	1.44	0.14	1.26	0.09	1.26	0.13	1.02	0.11	1.14	0.12	1.08	0.12	1.05	0.14	1.86	0.13	1.53	0.13
4	1.56	0.16	1.40	0.00	1.92	0.07	1.68	0.14	1.68	0.17	1.36	0.13	1.52	0.11	1.44	0.13	1.40	0.13	2.48	0.02	2.04	0.11
5	1.95	0.09	1.75	0.06	2.40	0.06	2.10	0.15	2.10	0.16	1.70	0.14	1.90	0.10	1.80	0.15	1.75	0.13	3.10	0.00	2.55	0.13
6	2.34	0.11	2.10	0.09	2.88	0.13	2.52	0.14	2.52	0.14	2.04	0.13	2.28	0.08	2.16	0.14	2.10	0.09	3.72	0.00	3.06	0.13
7		0.12	2.45	0.08	3.36	0.16	2.94	0.18	2.94	0.10	2.38	0.11	2.66	0.08	2.52	0.15	2.45	0.09	4.34	0.00	3.57	0.10
	3.12	0.15	3.15	0.09	3.84 4.32	0.19	3.36	0.19	3.36	0.11	3.06	0.11	3.04	0.09	3.24	0.07	2.80 3.15	0.12	4.96 5.58	0.00	4.08	0.10
ight Bank	3.90	0.00	3.50	0.00	4.80	0.00	4.20	0.00	4.20	0.00	3.40	0.00	3.80	0.00	3.60	0.00	3.50	0.00	6.20	0.00	5.10	0.00
ature Type		•	_		_	•	_		_	•	_	•	_		_	•	_	•	_	•	_	
iffle, run, or pool	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un

Surveyor's Signature: Date:	9/26/2008
-----------------------------	-----------

WBID#	2816
Site#	É

Data Sheet B – Site Characterization (Page 1 of 3) (must be completed for each site)

r			nti .								
Date & Time:	9/26/	28 11:4	学30	9	Location Descri	Location Description (e.g., road crossing):					
	Stream Name: Crain D; teh						Facility Name(s): Westwood Manor Apts. Permit Number(s): Mo-0048844				
Current Weath	er Conditio	ns: Clear	78	, •	Facility Name((s): U	lestmand	Mann Apt			
Weather Cond	Weather Conditions for Past 10 days: 231 in. precip. Permit Number(s): Mo - 0048944										
Official Diodgit Conditions at time of this survey (search DNR nome page for "drought"):											
No drought □; Phase II □; Phase III □; Phase IV □; Unknown □											
Site Location:											
	ORDINATES	(UNIVERSAL TR	ANSVER	SE MER	CATOR PROJECTION	, IN MET	ERS)				
Site 01 East	ing (UTM 2	(): 72947Gen	Nort	hing (U'	TM Y): (105 3 73	Horiz	ontal Accuracy	: 4.0 Meters			
4 .		(): 72936	Nort	hing (U	TM Y): 4053735	Horiz	ontal Accuracy / FOM / PDOP	: L Mataur			
Photos:		3-4/2 M						, , , , , , , , , , , , , , , , , , , ,			
Photo ID#	Phot	o Purpose	Photo	ID#	Photo Purpos		Photo ID#	Photo Purpose			
2816-6-	(pSirean			<u> </u>		Thoto ID#	1 noto 1 tripose			
070		pstream	12816_	6 _07/	Prstrea	-m					
Photo ID#	Phot	o Purpose	Photo	ID#	Photo Purpos	Photo Purpose		Photo Purpose			
Photo ID#	Phot	o Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose			
Uses Observed	1* * (Tices s	etually observed	at the ti	me of s	THAT)						
Swimming		☐ Skin diving	at the ti	***************************************	UBA diving	☐ Tub	ina	☐ Water skiing			
☐ Wind surfi		☐ Kayaking				□ Wad					
☐ Hunting	-0	☐ Trapping		☐ Fisl			e of the above	☐ Rafting ☐ Other:			
Describe: (Inclu	de number of i		, photo-do					et D- Recreational Use Interview			
when conducting	interviews.)	•			X 1 /A	,					
					<i>1</i>						
	-				/						

Stream Name & WBID #	Craven	Dirch	2816
Site #			

Date of Survey 9/24/08

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

Surrounding Cond	itions*: (Mark all that p	omote or impede recreation	onal uses. Attac	h photos of ev	idence or unusual i	tems of inte	erest.)			
☐ City/county park	cs	☐ MDC conserva	tion lands	☐ Urba	n areas	□ Ri	ural Residential			
☐ Campgrounds	☐ State parks	☐ National forest	s	☐ Natu	☐ Nature trails		☐ Stairs/walkway			
☐ Boating accesses	s	☐ No trespass sig	n	Steep	slopes	1 2 O1	ther:			
Comments: Agricultura Land										
Evidence of Humar	n Use*: (Attach photos a	nd reference in "Photos" :	section.)							
☐ Roads	☐ Foot paths/pri	nts	tform	☐ Campir	ng Sites	☐ Rope	swings			
□ RV / ATV Track	ks ☐ Fire pit/ring	☐ NPDES I	Discharge	□ Fishing	Tackle	☐ Lives	tock Watering			
None of the above	None of the above Comments / Other:									
Substrate*: (These va	lues should add up to 100%.)									
% Cobble	% Gravel	20 % Sand	20	> % Silt	66 % Mud	/Clay	- % Bedrock			
Aquatic Vegetation	Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.) **Control of the control of the con									
	Vater Characteristics*: (Mark all that apply.)									
Odor:	□ Sewage □ M	lusky Che	mical	None None	□ Ot	her:				
Color:	Ş Clear ☐ G	reen	/	☐ Milky	□ Ot	her:				
Bottom Deposit:	□ Sludge □ S	olids Fine	sediments	□ None	□ Ot	her:				
Surface Deposit:	□ Oil □ Se	cum 🗆 Foai	n	∠ None	□ Ot	her:				

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID#	Craven	Dirch	2816	Date of Survey 9/24/05
Site # 6				

Data Sheet B - Site Characterization (Page 3 of 3)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
			21		

Comments:	(Please record any additional comments here.)
	R

Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.

Printed Names of Personnel Collecting Data:	Pard	Caran!		
			<i>CL</i> .	-

																		Disso	lved O	xygen		
		Name:		aven Dit	ch	•	Waterb	ody ID:	2816			Site #:	6		-	Date:	9/26	/2008		Time:	11	:30
	Estimat	ed Chanı	nel Incis	on:	0.8	(m) (hei	ght betw	veen low	bank wi	dth and v	vater)					Di	ssolved	Oxygen:	9.	22	(mg/L)	
		ution - I						rizontal A		y Estimat 3856	e (EPE /	PDOP / +/-	FOM) 4.0	(me	ters)	Di	ssolved	Oxygen:	11	1.7	(% sat)	
	11	UTM X	:	729	476	·	JTM Y:		405	3735		+/-	3.0	(me	ters)		Specif	ic Cond:	2	14	(µS/cm)	1
		e Stream ermne Le			5	.5		(meters)		ength of S	-	-	150		(meters)	Wa	•	perature:			(°C)	
	Fie	ld Staff:						DC, TA														
										Trai	nsect C	ross-Se	ction									
	_)1		2	_	13)4		15		6		7	_	8)9		10		1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.60	0.08	0.51	0.09	0.62	0.09	0.57	0.05	0.58	0.07	0.62	0.08	0.60	0.13	0.52	0.08	0.64	0.10	0.51	0.09	0.54	0.10
3	1.20	0.13	1.02	0.08	1.24	0.15	1.14	0.05	1.16	0.06	1.24	0.08	1.20	0.12	1.04	0.11	1.28	0.11	1.02	0.07	1.08	0.10
4	2.40	0.14	2.04	0.09	2.48	0.05	2.28	0.08	2.32	0.07	2.48	0.03	2.40	0.11	2.08	0.06	2.56	0.12	2.04	0.05	2.16	0.10
5	3.00	0.14	2.55	0.10	3.10	0.07	2.85	0.07	2.90	0.07	3.10	0.07	3.00	0.11	2.60	0.01	3.20	0.10	2.55	0.05	2.70	0.10
6	3.60	0.15	3.06	0.09	3.72	0.09	3.42	0.06	3.48	0.08	3.72	0.06	3.60	0.11	3.12	0.09	3.84	0.11	3.06	0.04	3.24	0.09
7		0.11	3.57	0.10	4.34	0.10	3.99	0.05	4.06	0.08	4.34	0.06	4.20	0.11	3.64	0.10	4.48	0.10	3.57	0.06	3.78	0.08
8		0.12	4.08	0.12	4.96	0.18	4.56	0.00	4.64	0.06	4.96	0.06	4.80	0.10	4.16	0.10	5.12	0.10	4.08	0.09	4.32	0.11
ight Bank	5.40 6.00	0.09	4.59 5.10	0.13	5.58 6.20	0.10	5.13	0.06	5.22	0.06	5.58 6.20	0.07	5.40	0.10	4.68 5.20	0.10	5.76	0.11	4.59 5.10	0.09	4.86 5.40	0.07
eature Type							5.70	0.00													5.10	0.00
iffle, run, or pool	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un	R	un

Surveyor's Signature: Date:	9/26/2008
-----------------------------	-----------

WBID#_	2816
Site#_	7

Data Sheet B – Site Characterization (Page 1 of 3) (must be completed for each site)

Date & 1	Γime:	9/24/0	8 10:55			Location Descri	rintion (e	g road crossin	(a):		
		•	0 10:30				Location Description (e.g., road crossing):				
Stream	Name	Coarn	Ditch			a)	Facility Name(s): Westwood Manor Apts. Permit Number(s): MO-0048844				
Current	Weath	er Conditio	ons: clear	ファ		Facility Name(Permit Number NR home page for	s): W	estwood	Manor Ants		
Weather	Cond	itions for P	ast 10 days: $\sqrt{2}$.31 in.	orecip.	Permit Number	r(s): /	40-009	48844		
Official l	Droug	ht Conditio	ns at time of this	survey (s	earch D	NR home page for	"drought	"):			
No droug	ght ⁄⊅;	Phase I	; Phase II □; Phas	se III □;	Phase IV	/ □; Unknown □					
_								***************************************			
te Loca		ORDINATES	SOUNIVERSAL TRA	NSVFDS	F MFRC	ATOR PROJECTION	IN MET	FDC)			
Site 01	i								Q.,		
Site of	Last	mig (OTM)	X): 730602	North	mg (O I	1 405264	(EPE	/ FOM / PDOP	1218Meters		
Site 11	East	ing (UTM	X): 730716	North	ing (UT	MY): 405264 MY): 405259	Horiz E (EPE	ontal Accuracy: / FOM / PDOP	$\mathcal{C}_{i}\mathcal{D}$ Meters		
_						****					
otos:	<u> </u>							Γ. Τ			
Photo II		Pho	to Purpose	Photo		Photo Purpos	ie .	Photo ID#	Photo Purpose		
28/6_	68	U	pstream	28/6.	169	DrStr	eam				
				T THE STATE OF THE		90 Sept.					
Photo II	D#	Pho	to Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose		
Photo II	D#	Pho	to Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose		
L							***************************************				
es Obs	erve	d*: (Uses :	actually observed	at the tin	ne of sui	rvey.)					
☐ Swin	nming		☐ Skin diving		□ scu	BA diving	□ Tub	ing	☐ Water skiing		
☐ Wind surfing ☐ Kayaking			☐ Boat	ing	□ Wad	ling	☐ Rafting				
☐ Hunt	ting		☐ Trapping		☐ Fish	ing		e of the above	☐ Other:		
Describe	: (Inclu	de number of							t D- Recreational Use Interview		
wnen cond	aucting	interviews.)			Λ	JA					
					V	$\sim \mu \gamma$					

Stream Name & WBID #	2816	Craves	Piece	Date of Survey _	9/24/05
200				-	

Site # 3876 7

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

Su	irrounding Conditi	ions*: (Mark all that pr	omote or	: impede recreatior	nal uses. Atta	ch photos of ev	idence or unusual	l items of	interest.)	
	☐ City/county parks		1	ADC conservat		☐ Urba				esidential
	☐ Campgrounds	☐ State parks		Vational forests	1	☐ Natu	re trails		Stairs/w:	alkway
	☐ Boating accesses	☐ Fence		Vo trespass sign	1	Steep Steep	p slopes			***************************************
	Comments:		29	riculma						
			-							
Eν	vidence of Human			nce in "Photos" se	ection.)	T		T		
	Roads	☐ Foot paths/prin	ıts	☐ Dock/platf	form	☐ Campii	ng Sites	□ Ro	Rural Residential Stairs/walkway Other: Rope swings Livestock Watering Clay — % Bedrock er: er:	
	□ RV / ATV Tracks	s ☐ Fire pit/ring		□ NPDES D	ischarge	☐ Fishing	g Tackle	☐ Liv	vestock V	Vatering
	None of the above	e Comments / Other:		1.1	11					
				N	1A					
				,	/ -					
Su	ubstrate*: (These value	ues should add up to 100%.)								
	% Cobble	% Gravel	2	O % Sand	60	% Silt	20 % Mu	 ıd/Clay	4	% Bedrock
									1	
Αq	quatic Vegetation*	: (Note amount of vegetati	on or alg	al growth at the as	ssessment site	:.)				
		no	ne							
W	ater Characteristic	S*: (Mark all that apply	.)							
	Odor:	☐ Sewage ☐ M	lusky	☐ Chem	nical	D None		Other:		
	Color:	☑ Clear ☐ G	reen	☐ Gray		□ Milky	□с	Other:		
	Bottom Deposit:	☐ Sludge ☐ So	olids_	Fine	sediments	□ None	□ C	Other:		
	Surface Deposit:	□ Oil □ So	cum	☐ Foam	1	Ŋ None	□ C	Other:		

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID # _	2816	Creven	Disc	Date of Survey 2/260
Site #				

Data Sheet B - Site Characterization (Page 3 of 3)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
				De	

Comments:	(Please record any additional comments here.)
-----------	---



Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.

Printed Names of Personnel Collecting Data: Dand Caron: + Tim A I tnette

Surveyor's Signature:

Date of Survey:

Organization:

Date of Survey:

Position:

Position:

Date of Survey:

10-70-08

																Dissolved Oxygen							i
	Stream	Name:	Cr	aven Dit	ch		Waterb	ody ID:	2816			Site #:	7			Date:	0/26	/2008		Time:	10	.15	
	Estimat	ed Chanr	nel Incisi	on:	0.6	(m) (hei	ght betw	veen low	bank wi	dth and v	water)									•	10	.43	
	GPS Lo	cation - 1	Easting (UTM X), Northing (UTM				(Y) Ho	rizontal .	Accurac	v Estimat	te (EPE	FPE / PDOP / I		FOM)		Dissolved Oxygen:			7.25 (mg/L)				
						,,,		4052647 4052500		+/-		12.8 (meters)		Dissolved Oxygen:			83.2 (% sat)						
	11	11 UTM X: 730716 U				JTM Y:		4052500		+/-		4.0 (meters)		ters)	Specific Cond:			221 (μS/cm)					
		verage Stream Width: 4.5					(meters)	-		Survey Segment:			150 (meters)								
	(To dete	etermne Length of Reach) (20x average stream width)										Water Temperature: 22.1 (°C)											
	Fie	Field Staff: DC, TA																					
		Transect Cross-Section																					
	01		0	12	03		04		05		06		07		0	18	09		10		11		
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0.35	0.15	0.43	0.15	0.52	0.10	0.50	0.23	0.42	0.15	0.62	0.16	0.61	0.15	0.65	0.10	0.31	0.25	0.62	0.12	0.58	0.19	
2	0.70	0.31	0.86	0.22	1.04	0.20	1.00	0.15	0.84	0.11	1.24	0.15	1.22	0.20	1.30	0.21	0.62	0.31	1.24	0.17	1.16	0.27	
3	1.05	0.29	1.29	0.23	1.56	0.20	1.50	0.16	1.26	0.14	1.86	0.13	1.83	0.25	1.95	0.23	0.93	0.34	1.86	0.18	1.74	0.30	
4	1.40	0.25	1.72	0.20	2.08	0.20	2.00	0.17	1.68	0.16	2.48	0.18	2.44	0.24	2.60	0.21	1.24	0.31	2.48	0.21	2.32	0.20	
5	1.75	0.21	2.15	0.20	2.60	0.20	2.50	0.16	2.10	0.17	3.10	0.19	3.05	0.23	3.25	0.21	1.55	0.23	3.10	0.20	2.90	0.11	
6	2.10	0.15	2.58	0.17	3.12	0.15	3.00	0.20	2.52	0.19	3.72	0.19	3.66	0.21	3.90	0.19	1.86	0.22	3.72	0.19	3.48	0.08	
7	2.45	0.15	3.01	0.15	3.64	0.14	3.50	0.16	2.94	0.21	4.34	0.22	4.27	0.22	4.55	0.15	2.17	0.21	4.34	0.17	4.06	0.05	
8	2.80	0.29	3.44	0.24	4.16	0.17	4.00	0.15	3.36	0.15	4.96	0.20	4.88	0.19	5.20	0.14	2.48	0.11	4.96	0.30	4.64	0.18	
9	3.15	0.15	3.87	0.13	4.68	0.13	4.50	0.21	3.78	0.11	5.58	0.13	5.49	0.16	5.85	0.15	2.79	0.05	5.58	0.26	5.22	0.30	rwc
Right Bank	3.50	0.00	4.30	0.00	5.20	0.00	5.00	0.00	4.20	0.00	6.20	0.00	6.10	0.00	6.50	0.00	3.10	0.00	6.20	0.00	5.80	0.00	
Feature Type			_		_				_												_		
(riffle, run, or pool	R	Run		Run		Run		Run		Run		Run		Run		Run		Run		Run		Run	

Surveyor's Signature: Date:	9/26/2008
-----------------------------	-----------



























